

1. A solid ink feed system for a phase change ink jet printer, the feed system comprising:

a longitudinal feed channel; and

a longitudinal guide rail in the feed channel;

wherein at least a portion of the surface of the longitudinal guide rail is formed of a non-marking material.

2. The solid ink feed system of claim 1, wherein the non-marking material has a surface energy of less than approximately 30 dynes/cm.

3. The solid ink feed system of claim 1, wherein the non-marking material includes material selected from the group consisting of tetrafluoroethylene fluorocarbon polymers and fluorinated ethylene-propylene resins.

4. The solid ink feed system of claim 1, wherein the surface formed of the non-marking material comprises a coating of a non-marking material.

5. The solid ink feed system of claim 4, wherein the surface formed of the non-marking material comprises a film tape of polytetrafluoroethylene.

6. The solid in feed system of claim 5, wherein the film tape has a compressible backing.

7. The solid ink feed system of claim 6, wherein the compressible backing comprises an adhesive.

8. The solid ink feed system of claim 1, wherein the surface of the non-marking material is smooth.

9. The solid ink feed system of claim 8, wherein the smooth surface of the non-marking material is deformable.

10. A solid ink feed system for a phase change ink jet printer, the feed system comprising:

a longitudinal feed channel;

a first longitudinal feed channel guide rail in the feed channel; and

an ink stick having a guide element formed in it;

wherein the shape of the ink stick guide element and the shape of the feed channel guide rail substantially complement one another so that when the ink stick is placed in the solid ink feed system, the ink stick guide element fits with the longitudinal guide rail to form a load-bearing support contact between the feed channel guide rail and the ink stick guide element; and

wherein the surface of the first longitudinal feed channel guide rail is formed of a non-marking material.

11. The solid ink feed system of claim 10, wherein the surface of the first longitudinal feed channel guide rail is smooth.

12. The solid ink feed system of claim 11, wherein the smooth surface of the first longitudinal feed channel is deformable.

13. The solid ink feed system of claim 10, wherein the surface of the first longitudinal feed channel guide rail does not accumulate material from the ink stick.

14. The solid ink feed system of claim 10, wherein the surface of the first longitudinal feed channel guide rail is deformable.

15. The solid ink feed system of claim 10, wherein the surface of the first longitudinal feed channel guide rail is formed of a material having a low surface energy.

16. The solid ink feed system of claim 15, wherein the surface of the first longitudinal feed channel guide rail is formed of a material having a surface energy of less than approximately 30 dynes/cm.

17. A printer comprising:

an ink melt plate; and

an ink feed channel for moving an ink stick from an insertion point to the melt plate;

wherein a surface of the ink feed channel is formed of non-marking material.

18. A method of forming a solid ink feed system having a longitudinal feed channel, the method comprising:

applying a non-marking coating to a surface of the solid ink feed system against which an ink stick forms a load bearing contact as the ink stick traverses the solid ink feed system.

19. The method of claim 18, wherein applying the coating comprises applying a smooth, non-deformable tape to the surface of the solid ink feed system.

20. The method of claim 18, wherein applying the tape comprises applying a tape of extruded polytetrafluoroethylene film.

21. The method of claim 20, wherein the solid ink feed system includes a feed channel guide rail adapted so that when an ink stick is inserted into the feed channel, a portion of the ink stick forms a load-bearing contact with the feed channel guide rail, and applying the tape comprises applying the tape to the feed channel guide rail.